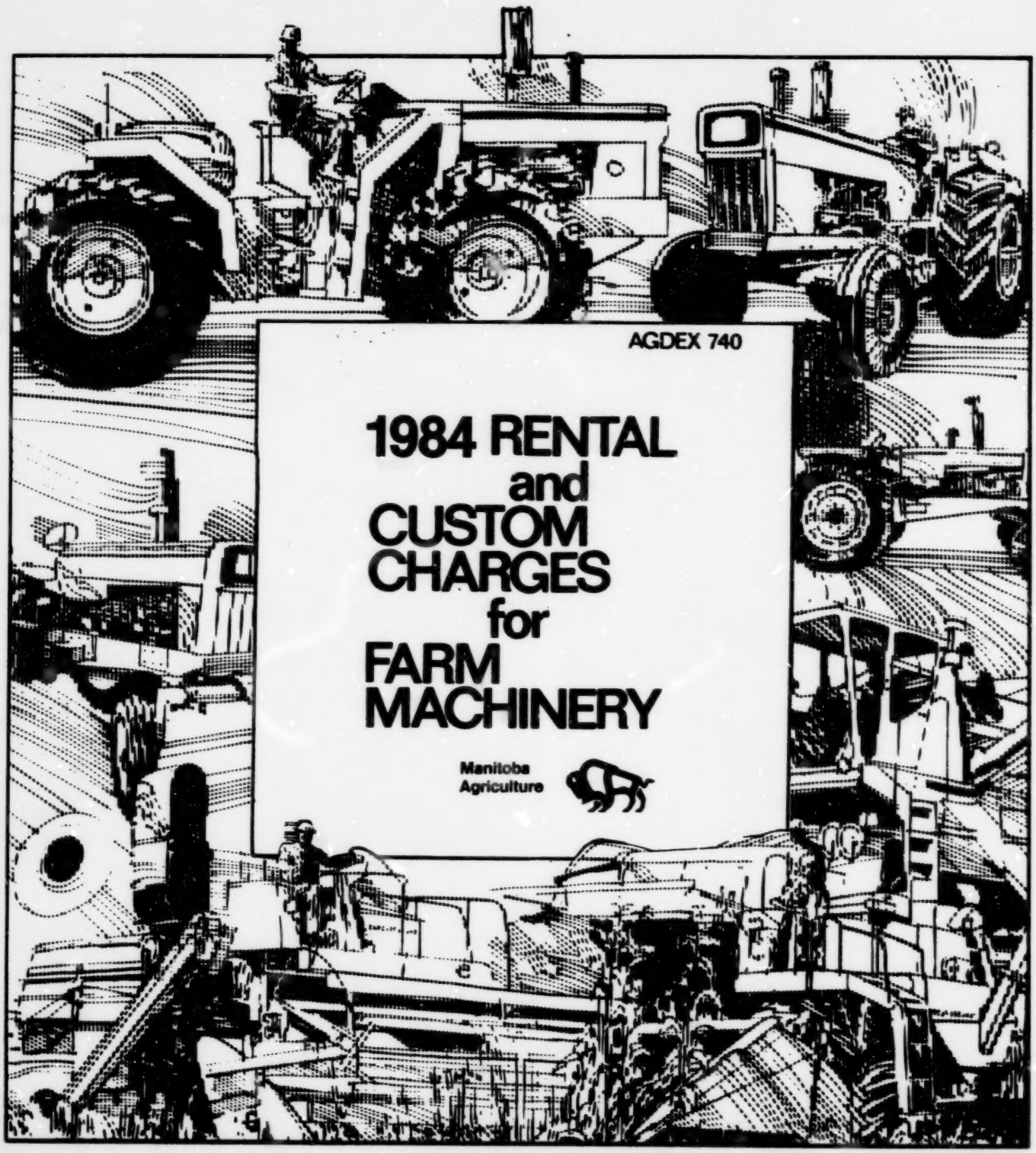

AGDEX 740

1984 RENTAL and CUSTOM CHARGES for FARM MACHINERY

Manitoba Agriculture

84- 4643 /

Rental and Custom Charges

This guide and work sheet has been developed to help farmers and custom operators calculate rental and custom charges for various farm operations.

The figures given here are for average conditions and may have to be altered for abnormal conditions such as stony land, excessive travel distances, etc.

THE CHARGES INCLUDE DEPRECIATION, INTEREST ON INVESTMENT (INTEREST AT 12% PER ANNUM), MAINTENANCE, REPAIRS AND A MARK-UP OF 25 PERCENT.

The charges listed are based on the machines' effective width unless otherwise indicated. Fuel is not included in the charges except for SP combines.

TO USE THE GUIDE AND WORK SHEET PROCEED AS FOLLOWS:

1. Enter the size of machine in Column 3.

2. Calculate the hourly rental charge for the machine by multiplying the rental rate by the size of the machine (Col. 2 x Col. 3) and enter in Column 4.

   This is the hourly rental charge for the machine.

3. Calculate the tractor power required for the machine (Col. 3 x Col. 5) and enter in Column 6.

4. Calculate the tractor charge by multiplying the figure in Column 6 by the tractor rate and enter in Column 7. Tractor rental rates are given on page 4.

5. Add the machine charge to the tractor charge (Col. 4 & Col. 7) and enter in Column 8.

   This is the total hourly rental charge for the tractor and machine.

6. If a custom rate is desired, enter the labour charge in Column 9 and add it to Column 8 to get the custom rate. Enter in Column 10.

   A suggested labour charge is $5.00 to $8.00 per hour.

7. Custom charges for self propelled combines are given on page 5.

8. If a custom or rental rate per hectare is desired for any of the machines, the hectares per hour must be calculated.

   hectares per hour (ha/h) =

   $$\frac{\text{width in metres} \times \text{speed in km/h}}{10}$$

   For tillage operations the above rate should be multiplied by about 80%, and for seeding and harvesting by about 65% to get actual field work rates.

NOTE: The rates shown are based on the assumed hours of use per year that are indicated. If the hours of use per year are 25 percent less than those indicated, the rates should be increased by 20 percent; if the hours of use per year are 25 percent greater, the rates should be reduced by five percent.

Tractor Rental Rates

2 and 4 wheel drive tractors (not including fuel)

Hours of use per year	Hourly rental rate
300	$0.40/kW *($0.30/HP)*
500	0.27/kW *($0.20/HP)*
800	0.21/kW *($0.16/HP)*

Power Ratings of 4 Wheel Drive Tractors

MAKE	PTO POWER OR EQUIVALENT kW	*HP*
Allis Chalmers 7580	139	*186*
8550	189	*254*
Big Bud 525/50	357	*479*
Belarus 1500	126	*169*
7100	201	*270*
Case 2470 & 4490 & 4494	130	*175*
2670 & 4690 & 4694	163	*220*
2870 & 4890 & 4894	188	*253*
4994	254	*340*
Ford FW20	133	*178*
FW30	180	*241*
FW40	192	*258*
FW60	242	*324*
International Harvester 3388	97	*131*
3588	112	*150*
3788	127	*170*
4386	149	*200*
4586	200	*268*
4786	225	*302*
John Deere 8440	134	*180*
8640	171	*229*
8450	139	*187*
8650	178	*239*
8850	227	*304*
Massey Ferguson 4800	134	*179*
4840	157	*211*
4880	203	*273*
4900	239	*321*

MAKE	PTO POWER OR EQUIVALENT kW	*HP*
Steiger Bearcat IV CM225	158	*212*
Cougar IV CM250	179	*240*
CS280	196	*263*
CM280	202	*271*
Panther IV CM325	229	*306*
CP1325	223	*299*
KP1325	225	*301*
KP1360	243	*326*
Panther IV CP1360	249	*334*
KP1400	278	*372*
CP1400	277	*371*
Versatile 150	45	*60*
555	136	*182*
700	134	*180*
750	142	*191*
835	149	*200*
800	152	*204*
825 & 855	158	*214*
850 & 875	188	*253*
895	213	*286*
900	190	*255*
935	209	*280*
950	224	*300*
1150	331	*444*
White 4-150 & 4-175	113	*152*
4-180 & 4-210	136	*182*
4-225	146	*196*
4-270	175	*235*

NOTE: Manufacturer's estimates or calculated values (drawbar power on concrete = 0.88 x PTO power) are given for some tractors.

Combine Rental and Custom Rates

(based on 175 hours of use per year)

PULL TYPE COMBINES (Not including tractor or operator)	Charge/hour
Coop Implements 9600	$ 62.50
International Harvester 1482	100.00
John Deere 6601	62.50
7721	90.00
Massey Ferguson 852	80.00
Versatile 2000	92.50
White 8650	62.50

The minimum tractor PTO power requirement for the Coop 9600, John Deere 6601 and White 8650 is 75 kW; for the Massey Ferguson 852 is 85 kW; and for the John Deere 7721, International Harvester 1482 and Versatile 2000 is 100 kW.

SELF PROPELLED COMBINES (Including operator and fuel)	Charge/hour
Gleaner Baldwin M3	$ 165.00
L3	175.00
N5	205.00
N6	225.00
N7	250.00
International Harvester 1440	155.00
1460	175.00
1480	200.00
John Deere 6620	145.00
7720	170.00
8820	200.00
Massey Ferguson 850	155.00
860	175.00
New Holland TR75	160.00
TR85	170.00
TR95	210.00
White 5542	80.00
8700	130.00
8900	145.00
9420	185.00
9700	220.00

Additional Charges for Cornheads	
4 row	$18.50/h
6 row	30.50/h
8 row	44.00/h

For combines not listed above the rates are as follows:
Pull type $8.85/m²* (not including tractor and operator)
Self Propelled $15.50/m²* (not including operator and fuel)

*Total separating area in m² - contact your local agricultural office for combine separating areas if necessary.

MACHINE WIDTH CONVERSIONS

feet	metres
5	1.5
6	1.8
7	2.1
8	2.4
9	2.7
10	3.0
11	3.4
12	3.7
13	4.0
14	4.3
15	4.5
16	4.9
17	5.2
18	5.5
19	5.8
20	6.1
21	6.4
22	6.7
23	7.0
24	7.3
25	7.6
26	7.9
27	8.2
28	8.5
29	8.8
30	9.1
31	9.4
32	9.8
33	10.1
34	10.4
35	10.7
36	11.0
37	11.3
38	11.6
39	11.9
40	12.2
42	12.8
44	13.4
46	14.0
48	14.6
50	15.2
55	16.8
60	18.3
65	19.8
70	21.3
75	22.9
80	24.4

1		2	3	4
MACHINE	ASSUMED HOURS OF USE PER YEAR	HOURLY RENTAL RATE	MACHINE SIZE	MACHINE RENTAL CHARGE PER HOUR COL (2 x 3)
Air Seeder w/harrows	150	$6.25/m *($1.90/ft)*		
Baler (355 x 455 mm) (with bale thrower)	125			$17.50 Plus $23.00 Twine
Baler (round) (1.5 m dia) (1.8 m dia)	100			$24.50 Plus $32.00 Twine
Bale Wagon (SP) (fuel not incl.) (PTO)	250		160 Bales 104 Bales 83 Bales	$70.00 $25.00 $15.00
Bale Mover (round bales)	125		6 Bale 8 Bale 12 Bale	$13.00 $16.50 $21.00
Bean puller	50	$4.00 per $1000*		
Cultivator (field) Rigid Wing	200	$1.15/m *($0.35/ft)* $1.55/m *($0.47/ft)*		
Cultivator (heavy duty) Rigid Wing	200	$1.40/m *($0.43/ft)* $1.85/m *($0.56/ft)*		
Cultivator (row crop)	125	$1.60 per $1000*		
Discer/Seeder	150	$4.00/m *($1.22/ft)*		
Drill (double disc press or hoe press) Rod Weeder Hoe Zero till	125	$7.10/m *($2.16/ft)* $6.50/m *($1.98/ft)* $9.00/m *($2.74/ft)*		
Feed Mix Mills	175	$1.40 per $1000*		
Forage Blower	100			$7.75
Forage Box & Wagon (high dump or self unloading)	100		6 t	$19.00
Forage Harvester (w/pick up) (w/2 row header) (w/pick up) (w/2 row header) (w/pick up) (w/2 row header)	100		Small Medium Large 	$27.00 $32.00 $36.50 $41.00 $47.00 $48.50

* Rate based on $1000 of new cost.

EXAMPLE:

Discer/Seeder	150	$4.00/m	9 m	$36.00 (9 x 4.00)

MACHINE WIDTH CONVERSIONS

feet	metres
5	1.5
6	1.8
7	2.1
8	2.4
9	2.7
10	3.0
11	3.4
12	3.7
13	4.0
14	4.3
15	4.5
16	4.9
17	5.2
18	5.5
19	5.8
20	6.1
21	6.4
22	6.7
23	7.0
24	7.3
25	7.6
26	7.9
27	8.2
28	8.5
29	8.8
30	9.1
31	9.4
32	9.8
33	10.1
34	10.4
35	10.7
36	11.0
37	11.3
38	11.6
39	11.9
40	12.2
42	12.8
44	13.4
46	14.0
48	14.6
50	15.2
55	16.8
60	18.3
65	19.8
70	21.3
75	22.9
80	24.4

1		2	3	4
MACHINE	ASSUMED HOURS OF USE PER YEAR	HOURLY RENTAL RATE	MACHINE SIZE	MACHINE RENTAL CHARGE PER HOUR COL (2 x 3)
Air Seeder w/harrows	150	$6.25/m *($1.90/ft)*		
Baler (355 x 455 mm)	125			$17.50 Plus
(with bale thrower)				$23.00 Twine
Baler (round) (1.5 m dia)	100			$24.50 Plus
(1.8 m dia)				$32.00 Twine
Bale Wagon	250			
(SP) (fuel not incl.)			160 Bales	$70.00
(PTO)			104 Bales	$25.00
			83 Bales	$15.00
Bale Mover (round bales)	125		6 Bale	$13.00
			8 Bale	$16.50
			12 Bale	$21.00
Bean puller	50	$4.00 per $1000*		
Cultivator (field) Rigid	200	$1.15/m *($0.35/ft)*		
Wing		$1.55/m *($0.47/ft)*		
Cultivator (heavy duty) Rigid	200	$1.40/m *($0.43/ft)*		
Wing		$1.85/m *($0.56/ft)*		
Cultivator (row crop)	125	$1.60 per $1000*		
Discer/Seeder	150	$4.00/m *($1.22/ft)*		
Drill (double disc press or hoe press)	125	$7.10/m *($2.16/ft)*		
Rod Weeder Hoe		$6.50/m *($1.98/ft)*		
Zero till		$9.00/m *($2.74/ft)*		
Feed Mix Mills	175	$1.40 per $1000*		
Forage Blower	100			$7.75
Forage Box & Wagon (high dump or self unloading)	100		6 t	$19.00
Forage Harvester (w/pick up)	100		Small	$27.00
(w/2 row header)				$32.00
(w/pick up)			Medium	$36.50
(w/2 row header)				$41.00
(w/pick up)			Large	$47.00
(w/2 row header)				$48.50

* Rate based on $1000 of new cost.

EXAMPLE:

Discer/Seeder	150	$4.00/m	9 m	$36.00 (9 x 4.00)

5	6	7	8	9	10
POWER kW/m (HP/ft)	POWER REQUIRED kW HP COL. (3x5)	TRACTOR RENTAL CHARGE PER HOUR COL. 6 x TRACTOR RATE	TOTAL RENTAL CHARGE PER HR COL. (4+7)	LABOUR CHARGE PER HOUR	TOTAL CUSTOM CHARGE PER HOUR COL. (8+9)
12-17 (5-7)					
	20 (25-30) 25 (30-35)				
	30 (40) 40 (50)				
			$70.00 Plus Fuel		
	40-45 (50-60) 35-40 (45-50)				
am 6-10 (2.5-4) ay 8-12 (3.5-5)					
am 9-14 (3.5-6) ay 12-18 (5-7.5)					
- 12 (3.5-5)					
e drills 10-13 (4-5.5) uble disc 5-7 (2-3) ero till 10 (4)					
	40-45 (50-60)				
	50-75 (70-100) 75-110 (100-150) 110-150 (150-200)				
8 - 12	90 kW (9 x 10)	$24.30 Plus Fuel (90 x 0.27)	$60.30 Plus Fuel	$7.70	$68 Plus Fuel

MACHINE WIDTH CONVERSIONS

feet	metres
5	1.5
6	1.8
7	2.1
8	2.4
9	2.7
10	3.0
11	3.4
12	3.7
13	4.0
14	4.3
15	4.5
16	4.9
17	5.2
18	5.5
19	5.8
20	6.1
21	6.4
22	6.7
23	7.0
24	7.3
25	7.6
26	7.9
27	8.2
28	8.5
29	8.8
30	9.1
31	9.4
32	9.8
33	10.1
34	10.4
35	10.7
36	11.0
37	11.3
38	11.6
39	11.9
40	12.2
42	12.8
44	13.4
46	14.0
48	14.6
50	15.2
55	16.8
60	18.3
65	19.8
70	21.3
75	22.9
80	24.4

			3	4
MACHINE	ASSUMED HOURS OF USE PER YEAR	HOURLY RENTAL RATE	MACHINE SIZE	MACHINE RENTAL CHARGE PER HOUR COL. (2 x 3)
Front End Loader	150	$1.25 per $1000*		
Grain Dryer	150	$1.25 per $1000*		
Harrows w/Hyd. Drawbar (diamond) (springtine)	125	$0.46/m *($0.14/ft)* $0.65/m *($0.20/ft)*		
Harrow Packers	125	$1.55/m *($0.47/ft)*		
Hay Stackers	125	$1.60 per $1000*		
Land Scraper	125	$1.50 per $1000*		
Manure Spreader (liquid or dry)	150	$1.40 per $1000*		
Mower - Conditioner	100	$8.75/m *($2.67/ft)*		
Mower	75	$3.40/m *($1.04/ft)*		
Packer w/Hitch	125	$0.65/m *($0.20/ft)*		
Planters (row crop)	75		4 row 6 row 8 row 12 row	$29.00 $40.50 $54.50 $82.50
	100		4 row 6 row 8 row 12 row	$24.50 $34.50 $46.00 $70.00
Plow - Semi Mounted Trailing	125	$6.00/m *($1.83/ft)* $7.00/m *($2.13/ft)*		
Post Hole Auger Post Driver	50			$4.00 $6.25
Potato Harvester	225		2 row	belted chain $87.(hooked chain $73.5
Potato Windrower	225		2 row	belted chain $36.(hooked chain $30.(
* Rate based on $1000 of new cost. Example: Manure Spreader (new cost $5000)		$1.40/$1000	5	$7.00 (5 x $1.40)

5	6	7	8	9	10
POWER kW/m *(HP/ft)*	POWER REQUIRED kW *(HP)* COL(3x5)	TRACTOR RENTAL CHARGE PER HOUR COL.6 x TRACTOR RATE	TOTAL RENTAL CHARGE PER HR COL. (4+7)	LABOUR CHARGE PER HOUR	TOTAL CUSTOM CHARGE PER HOUR COL. (8+9)
.2-3 *(0.5-1.2)*					
2.5-4 *(1-1.5)*					
10 *(4)*					
3.5-5 *(1.5-2)*					
1.2 *(0.5)*					
20-30 *(8-12)*					
	55-75 *(75-100)*				
	45-55 *(60-75)*				
	40 kW	$10.80 Plus Fuel (40 x 0.27)	$17.80 Plus Fuel	$7.20	$25 Plus Fuel

MACHINE WIDTH CONVERSIONS

feet	metres
5	1.5
6	1.8
7	2.1
8	2.4
9	2.7
10	3.0
11	3.4
12	3.7
13	4.0
14	4.3
15	4.5
16	4.9
17	5.2
18	5.5
19	5.8
20	6.1
21	6.4
22	6.7
23	7.0
24	7.3
25	7.6
26	7.9
27	8.2
28	8.5
29	8.8
30	9.1
31	9.4
32	9.8
33	10.1
34	10.4
35	10.7
36	11.0
37	11.3
38	11.6
39	11.9
40	12.2
42	12.8
44	13.4
46	14.0
48	14.6
50	15.2
55	16.8
60	18.3
65	19.8
70	21.3
75	22.9
80	24.4

1 MACHINE	ASSUMED HOURS OF USE PER YEAR	2 HOURLY RENTAL RATE	3 MACHINE SIZE	4 MACHINE RENTAL CHARGE PER HOUR COL.(2 x 3)
Rake (wheel) (parallel bar)	75	$2.25/m *($0.69/ft)* $3.25/m *($0.99/ft)*		
Rock Picker (fork type) (reel type)	125	$5.00/m *($1.52/ft)* $7.50/m *($2.29/ft)*		
Rock Windrower	125	$2.50/m *($0.76/ft)*		
Rod Weeder	100	$1.40/m *($0.43/ft)*		
Sprayer Sprayer attachment for harrowbar	50	$1.35/m *($0.41/ft)* $15.50		
Stackmover	125		3 t 6 t 9 t	$9.00 $15.00 $20.50
Sugar Beet Harvester	175		4 row 6 row	$45.00 $57.50
Sugar Beet Thinner	75	$3.00 per $1000*		
Sugar Beet Topper	175		4 row 6 row	$30.50 $37.50
Tandem and Offset Discs	150	$1.25 per $1000*		
Trucks (not including fuel)	16 days/mo	$6.00/day per tonne plus 2.4¢/km per t	Net payload in tonnes	
Windrower (PTO)	125	$2.10/m *($0.64/ft)*		
Windrower (SP) (SP) (with conditioner) (not including fuel)	150	$6.10/m *($1.86/ft)* $9.10/m *($2.77/ft)*		

*Rate based on $1000 of new cost.

Example:

Truck (8 tonne net payload)		$6/day/t plus 2.4¢/km/t	8 t	8x$6=$48/day Plus 8x2.4=19.2¢/km

5	6	7	8	9	10
POWER kW/m *(HP/ft)*	POWER REQUIRED kW *(HP)* COL.(3x5)	TRACTOR RENTAL CHARGE PER HOUR COL.6 x TRACTOR RATE	TOTAL RENTAL CHARGE PER HR COL. (4+7)	LABOUR CHARGE PER HOUR	TOTAL CUSTOM CHARGE PER HOUR COL. (8+9)
3.5-5 *(1.5-2)*					
5-8 *(2-3.5)*					
.7-1.2 *(0.3-0.5)*					
	10-15 *(7.5-11)*				
	55-75 *(75-100)* 80-110 *(110-150)*				
10-15 *(4-6)*					
3.5-6 *(1.5-2.5)*					

$48/day plus
19.2¢/km
plus fuel

Conversion Factors

SYMBOLS

LENGTH	AREA	WEIGHT	VOLUME
mm - millimetre	m^2 - square metre	mg - milligram	mL - millilitre
cm - centimetre	ha - hectare	g - gram	L - litre
m - metre		kg - kilogram	m^3 - cubic metre
km - kilometre		t - tonne	

POWER	PRESSURE	TEMPERATURE
kW - kilowatt	kPa - kilopascal	°C - degree Celsius

RELATIONSHIPS

LENGTH	AREA	WEIGHT	VOLUME
10 mm = 1 cm	10,000 m^2 = 1 ha	1000 mg = 1 g	1000 mL = 1 L
100 cm = 1 m		1000 g = 1 kg	1000 L = 1 m^3
1000 m = 1 km		1000 kg = 1 t	

****

LENGTH	AREA	WEIGHT
1 in = 2.54 cm	1 acre = 0.4047 ha	1 oz = 28.35 g
1 ft = 0.3048 m	1 sq in = 6.452 cm^2	1 lb = 0.4536 kg
1 yd = 0.9144 m	1 sq ft = 0.093 m^2	1 ton = 0.907 t
1 rod = 5.029 m	1 sq yd = 0.836 m^2	
1 mile = 1.609 km	1 sq mile = 2.59 km^2	

VOLUME	PROPORTION	TEMPERATURE
1 fl oz = 28.41 mL	1 fl oz/acre = 70.21 mL/ha	°C = 5/9 (°F - 32)
1 pint = 0.568 L	1 lb/acre = 1.121 kg/ha	
1 quart = 1.137 L	1 pint/acre = 1.40 L/ha	POWER
1 gal = 4.546 L	1 qt/acre = 2.81 L/ha	
1 U.S. gal = 3.785 L	1 gal/acre = 11.23 L/ha	1 HP = 0.7457 kW
1 cu in = 16.387 cm^3	1 lb/in^2 (psi) = 6.895 kPa	1 HP/ft = 2.45 kW/m
1 cu ft = 0.028 m^3		
1 cu yd = 0.765 m^3		

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